Modeling the Determinants Affecting Consumers’ Acceptance and Use of Information and Communications Technology

Saleh Alwahaishi, Department of Computer Science, Faculty of Electrical Engineering and Computer Science, Technical University of Ostrava, Ostrava, Czech Republic

Václav Snášel, Department of Computer Science, Faculty of Electrical Engineering and Computer Science, Technical University of Ostrava, Ostrava, Czech Republic

ABSTRACT

Understanding individual acceptance and use of Information and Communication Technology (ICT) is one of the most mature streams of information systems research. In Information Technology and Information System research, numerous theories are used to understand users’ adoption of new technologies. Various models were developed including the Innovation Diffusion Theory, Theory of Reasoned Action, Theory of Planned Behavior, Technology Acceptance Model, and recently, the Unified Theory of Acceptance and Use of Technology. Each of these models has sought to identify the factors which influence consumers’ intention or actual use of information technology. This research composes a new hybrid theoretical framework to identify the factors affecting the acceptance and use of Mobile Internet -as an ICT application- in a consumer context. The proposed model incorporates eight constructs: Performance Expectancy, Effort Expectancy, Facilitating Conditions, Social Influences, Perceived Value, Perceived Playfulness, Attention Focus, and Behavioral intention. Individual differences—namely, age, gender, education, income, and experience are moderating the effects of these constructs on behavioral intention and technology use.

Keywords: Acceptance, Flow Theory, Information and Communication Technology (ICT), Mobile Internet, Technology Adoption, Unified Theory of Acceptance and Use of Technology (UTAUT) Model

DOI: 10.4018/jea.2013040103
INTRODUCTION

Information and communications technology or information and communication technology (ICT), is often used as an extended synonym for Information Technology (IT), but is a more specific term that stresses the role of unified communications and the integration of telecommunications, computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information (Wikipedia, 2012). ICT is an interdisciplinary area of research driven and shaped by the fast development of computing, communication, and Internet-related technologies, which have a great impact on our societies and daily lives. Over the last few decades there has been an increase in ICT research, which has changed and shaped the way societies and organizations operate and produce their goods and services. It is not only the generation of new technology but also, and perhaps even to a higher extent, its diffusion throughout the economy which affects productivity growth at the macro-level.

Agarwal (2000) defines technology adoption as the use, or acceptance of a new technology, or new product. Moreover, understanding individual acceptance and use of information technology is one of the most mature streams of information systems research. The Internet and mobile technology, the two most dynamic technological forces in modern information and communication technologies are converging into one ubiquitous mobile Internet service, which will change our way of both doing business and dealing with our daily routine activities. There is no doubt that the mobile Internet service is moving toward the new generation on which enables mobile users to enjoy a variety of new and upgraded multimedia mobile services.

ICT ACCEPTANCE

As the use of information and communication technology (ICT) expands globally, there is need for further research into cultural aspects and implications of ICT. The acceptance of Information Technology (IT) has become a fundamental part of the research plan for most organizations (Igbaria, 1993). A better understanding of the
Related Content

Implementation of Electronic Health Record System at a Community Healthcare Organization
[www.irma-international.org/article/implementation-electronic-health-record-system/66371/](http://www.irma-international.org/article/implementation-electronic-health-record-system/66371/)

ANN Based Approach to Integrate Smell Sense in Multimedia Systems
[www.irma-international.org/article/ann-based-approach-integrate-smell/62597/](http://www.irma-international.org/article/ann-based-approach-integrate-smell/62597/)

Strategies for Marketing an Academic Library in an African Setting
Sylvia A. Ogola and Japhet Otike (2012). *Library and Information Science in Developing Countries: Contemporary Issues* (pp. 61-69).
[www.irma-international.org/chapter/strategies-marketing-academic-library-african/60796/](http://www.irma-international.org/chapter/strategies-marketing-academic-library-african/60796/)

An Efficient and Simple Algorithm for Matrix Inversion
[www.irma-international.org/article/efficient-simple-algorithm-matrix-inversion/41011/](http://www.irma-international.org/article/efficient-simple-algorithm-matrix-inversion/41011/)

3D Animated Movies, Touch Screen Applications and Visual Motor Development of Five-Year-Old Children